

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019445**Date Inspected:** 10-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspector: Mr. Yu Jiao

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Wang Zhengbin, stencil 216086 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair-1 to make a weld repair of ultrasonic rejections to OBG segment 13AE weld SEG3007AT-082. ZPMC had issued weld repair document B-WR-216086 that documents the repair of this weld. This QA Inspector measured a welding current of approximately 240 amps. Mr. Wang Zhengbin used an electric grinder to clean the weld surfaces, the base material were preheated with electric heaters and he appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yang Yunfeng, stencil 215553 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair to make a weld repair of ultrasonic rejections to OBG segment 13AE weld SEG3007J-032. ZPMC had issued weld repair document B-WR-17428 that documents the repair of this weld. This QA Inspector observed a welding current of approximately 170 amps. Mr. Yang Yunfeng used an

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electric grinder to clean the weld surfaces, the base material were preheated with electric heaters and he appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 066258 used shielded metal arc welding procedure WPS-345-SMAW-3G(3F)-Repair to make a weld repair of ultrasonic rejections to OBG segment 13CE weld SEG3011K-087. ZPMC had issued weld repair document B-WR-19798 that documents the repair of this weld. This QA Inspector observed ZPMC QC has recorded a welding current of 159 amps, 25.3 volts and a welding travel speed of 118mm per minute. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 066041 used ESAB flux cored welding procedure WPS-B-T-2231-ESAB to make OBG segment 13CE weld SA3038-021-002. ZPMC QC had recorded a welding current of 295 amps, 25.7 volts and a welding travel speed of 304mm per minute. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Jinjiu stencil 043661 used shielded metal arc welding procedure specification WPS-345-SMAW-3G(3F)-FCM-Repair-1 to make OBG segment 14E weld repair SEG3019V-029. This QA Inspector observed ZPMC had recorded a welding current of 151 amps, 25.7 volts and a welding travel speed of 142mm per minute. Mr. Wang Jinjiu appeared to be certified to make this weld. This weld repair was the result of ultrasonic rejections and was documented on weld repair B-WR-18568. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Hai Jun, stencil 201087 used shielded metal arc welding procedure specification WPS-B-P-2212-TC-U4B-FCM-1 to complete weld SEG3019BB-103. This QA Inspector observed ZPMC has recorded a welding current of 172 amps 25.8 volts, a welding travel speed of 115mm per minute and Mr. Wu Hai Jun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Xiang Rong, stencil 066763 used ESAB flux cored welding procedure specification WPS-B-T-2231-ESAB to make OBG segment 14E weld SEG3019Q-1-247. This QA Inspector observed a welding current of approximately 205 amps, 26.0 volts and Mr. Zhang Xiang Rong appeared to be certified to make this weld. Prior to welding ZPMC used electric heaters to preheat the base material of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Ni Lei Jiang stencil 037723 used shielded metal arc welding procedure specification WPS-B-P-2114-TC-U4B-FCM-1 to perform OBG segment 14E weld SEG3019AL-009. This QA Inspector measured a welding current of approximately 150 amps and the base materials had been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Cao Xinglong, stencil 069683 used shielded metal arc welding procedure specification WPS-B-P-2114-TC-U4B-FCM-1 to perform OBG segment 14E weld SEG3019AL-008. This QA Inspector measured a welding current of approximately 160 amps and the base materials had been

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preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Qie Jian Zhou, stencil 067571 used shielded metal arc welding procedure specification WPS-B-P-2214-B-U2-FCM-1 to make OBG segment 13CE welds SEG3011E-408 and 409. This QA Inspector measured a welding current of approximately 155 amps and Mr. Qie Jian Zhou appeared to be certified to make this weld. ZPMC had used electric heaters to preheat the base material of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhuang Hua stencil 068206 used flux cored welding procedure WPS-B-T-2233-ESAB to make OBG segment 13AE weld SEG3007Y-102. This weld joins stiffener plates to a floor beam. This QA Inspector observed ZPMC has recorded a welding current of 216 amps and 25 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Yong Shui, stencil 067656 used shielded metal arc welding procedure WPS-345-SMAW-3G(3F)-FCM-Repair to make weld repair of ultrasonic rejections to OBG segment 14E weld SEG3019V-1-028. ZPMC had issued weld repair document B-WR-19768 that documents the repair of this weld. This QA Inspector measured a welding current of approximately 150 amps, the base materials were preheated with electric heaters and Mr. Li Yong Shui appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey +8615000026784, who represents the Office of Structural Materials for your project.

Inspected By: Dawson,Paul

Quality Assurance Inspector

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Reviewed By: Carreon,Albert

QA Reviewer